

## IN THE CLAIMS

Please amend the claims as follows:

1-20. (Cancelled)

21. (Currently Amended) A high-availability cellular computer system capable of automatically updating firmware in cells of the system, the system comprising:

a physical high speed interconnect;

a first cell and a second cell, each cell comprising at least one processor coupled to

at least one random-access memory subsystem,

at least one nonvolatile memory system, and

a high-speed interconnect interface;

wherein the high-speed interconnect interface of the first cell and the second cell is coupled to the high speed interconnect; and

wherein the nonvolatile memory subsystem of the first cell has recorded

therein corrupt firmware, and the nonvolatile memory subsystem of the second cell has recorded therein valid firmware; and

wherein the first cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the first cell is corrupt and, upon recognizing that the firmware of the first cell is corrupt, for updating the nonvolatile memory system of the first cell with firmware copied from a cell having valid firmware; and

wherein the second cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the second cell is valid, and for transmitting the firmware in the nonvolatile memory system of the second cell to the first cell.

22. (Currently Amended) The system of claim 21 further comprising:  
a physical manageability system interconnect;

wherein the first cell and the second cell each further comprise a management processor;

wherein the management processor of the second cell contains machine readable code to receive an update message via the manageability system interconnect and, in response thereto, to transmit an acknowledgement via the manageability system interconnect, to enable the high speed interconnect; and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the high speed interconnect.

23. (Currently Amended) The system of claim 21 further comprising:

a manageability system interconnect;

wherein the first cell and the second cell further comprise a management processor;

wherein the management processor of the second cell contains machine readable code to receive an update message via the manageability system interconnect and, in response thereto, to transmit an acknowledgement via the manageability system interconnect, to enable the high speed interconnect; and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the manageability system interconnect.

24. (New) A high-availability cellular computer system capable of automatically updating firmware in cells of the system, the system comprising:

a high speed interconnect;

a first cell and a second cell, each cell comprising at hardware level:

at least one processor of the cell coupled to at least one random-access memory subsystem of the cell,

at least one nonvolatile memory system coupled to the at least one processor of the cell,

a high-speed interconnect interface coupling the at least one processor of the cell to the high speed interconnect,

wherein the high-speed interconnect interface of the first cell and the second cell is coupled to the high speed interconnect; and wherein the nonvolatile memory subsystem of the first cell has recorded therein corrupt firmware, and the nonvolatile memory subsystem of the second cell has recorded therein valid firmware; and wherein the first cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the first cell is corrupt and, upon recognizing that the firmware of the first cell is corrupt, for updating the nonvolatile memory system of the first cell with firmware copied from a cell having valid firmware; and wherein the second cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the second cell is valid, and for transmitting the firmware in the nonvolatile memory system of the second cell to the first cell.

25. (New) The system of claim 24 further comprising:  
a manageability system interconnect;  
wherein the first cell and the second cell further comprise at hardware level a management processor;  
wherein the management processor of the second cell contains machine readable code to receive an update message via the manageability system interconnect and, in response thereto, to transmit an acknowledgement via the manageability system interconnect, to enable the high speed interconnect; and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the high speed interconnect.

26. (New) The system of claim 24 further comprising:  
a manageability system interconnect;  
wherein the first cell and the second cell further comprise a management processor;  
wherein the management processor of the second cell contains machine readable code to receive an update message via the manageability

system interconnect and, in response thereto, to transmit an acknowledgement via the manageability system interconnect, and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the manageability system interconnect.

27. (New) A high-availability cellular computer system capable of automatically updating firmware in cells of the system, the system comprising:
  - a high speed interconnect;
  - a management interconnect;
  - a first cell and a second cell, each cell comprising at hardware level:
    - at least one processor of the cell coupled to at least one random-access memory subsystem of the cell,
    - at least one nonvolatile memory system coupled to the at least one processor of the cell,
    - a high-speed interconnect interface coupling the at least one processor of the cell to the high speed interconnect,
    - a management processor of the cell coupled to a nonvolatile memory for management code of the cell, and
    - an interface coupling the management processor of the cell to the management interconnect;
  - wherein the nonvolatile memory subsystem of the first cell has recorded therein errored firmware selected from the group consisting of outdated or corrupt firmware, and the nonvolatile memory subsystem of the second cell has recorded therein valid firmware; and
  - wherein the first cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the first cell is errored firmware and, upon recognizing that the firmware of the first cell is errored, for transmitting over the management interconnect a request for valid firmware to the second cell, and for updating the nonvolatile memory system of the first cell with valid firmware;
  - wherein the second cell contains machine readable code for recognizing that the firmware in the nonvolatile memory system of the second cell is

valid, and for transmitting the firmware in the nonvolatile memory system of the second cell to the first cell; and wherein the management code of the second cell comprises machine readable code to receive a request for valid firmware and, in response thereto, to transmit an acknowledgement via the management interconnect, to enable the high speed interconnect; and to transmit the firmware in the nonvolatile memory system of the second cell to the first cell via the high speed interconnect.

28. (New) The cellular computer system of claim 29 wherein the errored firmware is corrupt firmware.

29. (New) The cellular computer system of claim 29 wherein the errored firmware is outdated firmware.